

ROLLER SKATE THAT IS EASY TO ATTACH AND DETACH

BACKGROUND OF THE INVENTION

Field of the Invention:

5 This invention relates to the roller skate that is easy to attach and detach. In more detail, this invention shall pertain to the roller skate that can be attached and detached from the shoes regardless of feet size by enabling width to be adjusted in discretion if and when necessary, and this invention shall be comprised of two wheels.

Description of the Prior Art:

10 Regular roller skate shall be comprised of structure that is comprised of four rollers that rotate while slipping to the floor and which is fixed and attached onto the bottom of the roller skate in two parts in a stable manner or structure that is fixed and attached with numerous rollers in a row in order to enhance speed or sense of balance.

 Likewise, hitherto roller skate enables user to enjoy riding it when the user
15 rides fast by rolling the feet powerfully while balancing the body after tying the roller skate tight while worn.

 Hitherto regular roller skate requires roller skate that fits feet size since user cannot enjoy riding it when the feet size does not fit the roller skate since numerous rollers are fixed and attached onto the roller skate that is produced in different sizes.

It is not possible to wear roller skate if and when the feet size does not fit the size of the feet. Moreover, if and when the roller skate with large size is worn, there is risk of getting blisters or pain on the feet and safety related accidents. Thus, in the case of children who grow fast every day, they cannot use the roller skate that they
5 purchased for a prolonged period of time since it does not fit the feet size.

In addition, hitherto roller skate is difficult to carry due to its large bulk since it is structured by the fixation and attachment of numerous rollers and roller skate. Meanwhile, roller is worn or torn, financial problems such as the need to find repair shop or to purchase new roller skate incur.

10 Moreover, user needs to change into user's shoes when the user finishes using roller skate. Roller skate that is taken off shall be stored or carried. In the above mentioned case, shoes are not easy to store or carry due to the bulk of the shoes that is formed as single unit.

SUMMARY OF THE INVENTION

15 This invention relates to the roller skate that is easy to attach and detach that can attach and detach from the shoes regardless of feet size by enabling width to be adjusted in discretion if and when necessary, and this invention shall be comprised of two wheels.

This invention shall comprise projection sill towards the direction of width
20 when it pertains to the foothold of the other side where the side wall is formed. Center shall be comprised of conjoining part that is formed with numerous conjoining

holes. Foothold of other surface shall form [H]-shaped groove towards the direction of width so that the above mentioned projection sill can be fit in. Conjoining hole shall be formed at the center, and conjoining part shall be comprised so that the above mentioned conjoining part can be fit into the lower part. Wheel protection support
5 shall be formed on the above mentioned side wall in single unit. Wheel shall be formed between the side wall and wheel protection support so that it can rotate. At the upper part of the side wall, band and clip shall be comprised so that it shall be detached and attached at the rear part of the shoes. However, conjoining sill and [H]-shaped groove, and conjoining part and conjoining part of the above mentioned
10 foothold shall be mutually fit in to conjoin bolt and nut onto the conjoining hole of conjoining part to conjoin two footholds.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 shall be perspective drawing of the present invention.

Figure 2 shall be perspective drawing on the decomposed view of the present
15 invention.

Figure 3 shall be perspective drawing on the decomposed view of the present invention's foothold structure.

Figure 4 shall be sectional view of the present invention.

Figure 5 shall be plane figure of the present invention.

20 Figure 6 shall be figure that shows usage state of this invention

Figure 7 shall be perspective drawing on the decomposed view of the present invention's other actual example.

Figure 8 shall be sectional view that shows Figure 7's conjoined state.

Figure 9 shall be perspective drawing on the decomposed view on the present invention's other actual example.

< Explanation on the Symbol Pertaining to Key Parts of Figure >

- | | | |
|----|---------------------------------|---|
| 5 | 1,1' : side wall | 2,2' : foothold |
| | 3,3' : projection sill | 4,4' : conjoining hole |
| | 5 : conjoining part | 6,6' : □-shaped groove |
| | 7,7' : conjoining hole | 8 : conjoining part |
| | 9,9' : wheel protection support | 10,10' : wheel |
| 10 | 11, 11' : band | 12, 12' : clip |
| | 13 : bolt | 14 : nut |
| | 15 : fixation band | 16 : scrap for the prevention of movement |
| | 17 : scrap for reinforcement | |

DETAILED DESCRIPTION

15 This invention was invented to solve the above mentioned problems. Two wheels shall be formed, and this invention shall enable discretionary adjustment of the width. This invention shall be comprised so that the attachment and detachment are enabled by leveraging the clip situated at the rear side of the shoes. Moreover, carrying and wearing of this invention shall be made easy. Discretionary adjustment
20 of size is enabled. Purpose of this invention shall be provide roller skate that can be

attached and detached and which enables user to learn to start, navigate and stop easily.

In addition, size can be adjusted in discretion.

【Composition of the Invention】

The following is the explanation on the ideal actual example of this invention,
5 using attached figures.





As depicted on Figure 1 or Figure 6, this invention shall comprised of;
foothold (2) at the one side of the foothold (2,2') where side wall (1,1') is formed shall
form projection sill (3,3') that is in the direction of the width, conjoining part (5) that is
formed with numerous conjoining hole (4,4') shall be at the center, foothold of other
10 surface (2') shall form -shaped groove (6,6') towards the direction of width so that
the above mentioned projection sill (3,3') can be fit in, conjoining hole (7,7') shall
form at the center, conjoining part (8) shall be comprised so that the above mentioned
conjoining part (5) can be fit into the lower part, wheel protection support (9,9') shall
be formed in single unit at the above mentioned side wall (1,1') so that the wheel (10)
15 between side wall (1,1') and wheel protection support (9,9') can rotate, band (11,11')
and clip (12) shall be comprised at the upper part of side wall (1,1') so that attachment
and detachment at the back axis off the shoes are enabled, and conjoining sill (3,3') of
the above mentioned foothold and -shaped groove (6,6'), and conjoining part (5)
and conjoining part (8) shall be mutually fit in to conjoin bolt (13) and nut (14) into
20 conjoining hole (4,4') (7,7') of conjoining part (5) (8) so that two footholds (2,2') can
be conjoined.

Figure 1 shall be perspective drawing of the present invention. Figure 2 shall be perspective drawing on the decomposed view of the present invention. Figure 3 shall be perspective drawing on the decomposed view of the present invention's foothold structure. Figure 4 shall be sectional view of the present invention. Figure 5 shall be plane figure of the present invention. Figure 6 shall be figure that shows usage state of the present invention.

As depicted on Figure 1 or Figure 6, this invention shall be comprised of two foothold (2,2') where side wall (1,1') is formed, and foothold (1) of one side shall comprise projection sill (3,3') towards the direction of width. At the center, 10 conjoining part (5) formed with numerous conjoining hole (4,4') shall comprise the center.


In addition, foothold of other surface (2') shall form -shaped groove (6,6') towards the direction of width so that the above mentioned projection sill (3,3') can be fit in, conjoining hole (7,7') shall form at the center, conjoining part (8) shall be 15 comprised so that the above mentioned conjoining part (5) can be fit into the lower part.

Wheel protection support (9,9') shall be formed in single unit at the above mentioned side wall (1,1') so that the wheel (10) between side wall (1,1') and wheel protection support (9,9') can rotate. Band (11,11') and clip (12) shall be comprised at the upper part of side wall (1,1') so that attachment and detachment at the back axis off 20 the shoes are enabled.

Conjoining sill (3,3') of the above mentioned foothold and -shaped groove (6,6'), and conjoining part (5) and conjoining part (8) shall be mutually fit in to conjoin

bolt (13) and nut (14) into conjoining hole (4,4') (7,7') of conjoining part (5) (8) so that two footholds (2,2') can be conjoined.

The present invention, configured as mentioned above, requires that the width of roller skate be fit to the width of the shoes if and when user wants to wear the roller skate. Accordingly, bolt (13) and nut (14) that are conjoined onto the conjoining part (5) (8) of foothold (2,2')'s conjoining hole (4,4') (7,7') shall be unscrewed to adjust width of roller skate's foothold (2,2') to fit the shoes. Then, bolt (13) and nut (14) shall be conjoined onto the conjoining hole (4,4') (7,7') of conjoining part (5) (8) to conjoin and fixate two foothold (2,2').

Here, projection sill (3,3') of foothold (2,2') and -shaped groove (6,6') shall be fit together in an interlocked manner so that sliding shall be formed. Accordingly, they do not separate, and this invention facilitates adjustment of foothold (2,2')'s width without having the above mentioned separate. Moreover, distance of the conjoining part (5)'s conjoining hole (4,4') pertaining to the foothold (2) of one side shall be formed more precisely than the distance of the conjoining hole (7,7') of foothold of other surface (2')'s conjoining part (8), and conjoining hole (7,7') of conjoining part (8) shall be formed into three so that bolt (13) and nut (14) can be conjoined only onto a single conjoining hole (4,4') (7,7'). Accordingly, roller skate pertaining to this invention can be used despite differences in the shoes size since the width of foothold (2,2') can be adjusted into diverse width.

If and when the width of roller skate shall be adjusted as mentioned above to fit the shoes of the user, clip (12) of band (11) shall be unscrewed, and back axis of the

roller skate shall be placed onto the foothold (2,2'). Band (11') shall be placed towards the direction of the heel, and band (11) shall be placed on top of feet to tighten with clip (12). Accordingly, wearing of roller skate is completed.

Meanwhile, Figure 7 and Figure 8 depict the other actual example pertaining to the present invention, and shall be comprised of foothold (2 ') of one side and foothold (2') of other side, which are each comprised of side wall (1,1 '). Accordingly, they are interlocked and formed to enable the heel of shoes to settle. Projection for width adjustment (2'a) shall be formed at the foothold (2') of other side so that slide conjoining is enabled to the groove formed long to enable width adjustment (2a) that is formed into the direction of width at the lower part of the above mentioned foothold (2 ') of one side. Bolt (13) and nut (14) shall be conjoined to the conjoining hole (2'b) that is formed at the center part of the foothold (2') of other side and long hole for conjoining (2b) formed into the direction of width at the center part of the above mentioned foothold (2 ') of one side. Wheel (10) (10') shall be installed at the both side wall (1) (1') of the above mentioned foothold (2 ') of one side and foothold (2') of other side so that wheel (10) (10') shall rotate, and shall be installed at the upper part of the both side wall (1) (1') of the above mentioned foothold (2 ') of one side and foothold (2 ') of other side and shall be comprised of fixation band (15) that fixates shoes by being installed at the upper part of both side wall (1) (1').

Side wall (1) formed perpendicular shall be formed at the above mentioned foothold (2 ') of one side in single unit. Wheel (10) shall be installed on the above

mentioned side wall (1) to enable the wheel to rotate while operating. Wheel protection support (9) shall be formed on side wall (1) in single unit to protect the above mentioned wheel (10), and fixation hole (2c) where fixation band (15) is conjoined shall be formed at the upper part of the above mentioned side wall (1).

5 In addition, long hole for conjoining (2b) shall be perforated into the direction of width on center part of the above mentioned foothold (2') of one side. At the lower part of both sides of the above mentioned long hole for conjoining (2b) shall be formed with groove formed long to enable width adjustment (2a) into the direction of width.

 Side wall (1') formed perpendicular shall be formed at the above mentioned
10 foothold (2') of other side in single unit. Wheel (10) shall be installed on the above mentioned side wall (1') to enable the wheel to rotate while operating. Wheel protection support (9') shall be formed on side wall (1') in single unit to protect the above mentioned wheel (10'), and fixation hole (2'c) where fixation band (15) is conjoined shall be formed at the upper part of the above mentioned side wall (1').

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 In addition, numerous conjoining hole (2'b) shall be perforated into the direction of width on center part of the above mentioned foothold (2') of other side. At the lower part of both sides of the above mentioned conjoining hole (2'b) shall be formed with projection for width adjustment (2'a) into the direction of width.

20 Fixing hook (15a) shall be installed at the end part of both sides when it pertains to the above mentioned fixation band (15), and the worn shoes shall be fixated

by being conjoined into the fixation hole (2c) (2'c) of both sides that is formed at the
 5 foothold (2 ') of one side and foothold (2') of other side.

If and when the above mentioned bolt (13) and nut (14) is width adjusted
 according to the shoes size of the user based on the interlocking of the foothold (2 ')
 5 of one side and foothold (2') of other side, foothold (2 ') of one side' s long hole
 for conjoining (2b) and foothold (2') of other side' s conjoining hole (2' b) shall be
 conjoined with screw to fixate foothold (2) (2') of both sides.

Moreover, shoes that are worn no longer separate towards the rear since scrap
 for the prevention of separation (2d) (2'd) is additionally formed at the rear of the
 10 above mentioned foothold (2 ') of one side and foothold (2') of other side's both
 side wall (1) (1').

Meanwhile, Figure 8 shall depict yet another actual example pertaining to the
 present invention. Scrap for the prevention of movement (16) shall be formed on the
 outer surface of the above mentioned nut (14) as single unit, which can facilitate
 15 conjoining with screw when conjoining with bolt (13) since movement into the left and
 right does not take place.

Unexplained Symbol 17 shall be scrap for reinforcement that shall be installed
 between bolt (13) and foothold (2 ') of one side.

This invention composed as mentioned above adjusts width by slide
 20 conjoining projection for width adjustment (2'a) formed on foothold (2') of other
 side into groove formed long to enable width adjustment (2a) formed on foothold (2 ')
 of one side at a state when heel of shoes is settled into foothold (2 ') of one side to

enable width adjustment according to the user's shoes. Conjoining shall be executed by screw conjoining bolt (13) and nut (14) onto conjoining hole (2'b) and long hole for conjoining (2b) that are each formed at the foothold (2) (2') of both sides to fixate foothold (2 ') of one side and foothold (2') of other side according to the adjusted
 5 width.

Next, heel of shoes shall be tightened with scrap for the prevention of separation (2d) (2'd) that is formed onto the both side wall (1) (1') so that the shoes will not separate towards the rear. To fixated these shoes that are worn, fixation band (15) shall be conjoined into the fixation hole (2c) (2'c) that is formed at the upper part
 10 of both side wall (1) (1').

When user finishes wearing roller skate as mentioned above, user can enjoy riding the above mentioned roller skate as if enjoying regular roller skate. Roller skate of this invention shall have wheel (10,10') only on the back axis. The roller skate of this invention shall be comprised in a way that the control of the roller skate is enabled
 15 from the front part, which facilitates control of roller skate. Moreover, this invention can mitigate accident that could result while riding roller skate.

When the roller skate is disassembled when the use of roller of stopped, clip (12) of band (11) shall be unscrewed. Separation of roller skate from shoes is easy and it is easy to carry around due to its small size.

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